## REMARKS/ARGUMENTS

This Amendment is submitted within the three-month period for reply extending to May 14, 2007. Therefore, no extension of time fee is due. The status of the claims is summarized below.

Claims 1-19 are currently amended.

Claims 1-19 remain pending.

**Rejections under 35 U.S.C. 102**

Claims 1-2, 4-5, 14-15, and 17-18 were rejected under 35 U.S.C. 102(e) as being anticipated by Tsai et al. ("Tsai" hereafter) (U.S. Patent No. 6,504,905). These rejections are traversed.

Amended claim 1 recites an operation for transmitting reference test data through a system under test (SUT). Amended claim 1 also recites an operation for receiving a degraded version of the reference test data from the SUT. Amended claim 1 further recites operations for locating a plurality of data segments in the degraded version of the reference test data, and comparing each of the plurality of data segments in the degraded version of the reference test data to the corresponding data segment in the reference test data using a fixed point operation to evaluate a level of degradation within the degraded version of the reference test data.

Tsai teaches a method for testing voice signals generated by a voice messaging system (VMS). More specifically, Tsai teaches a method for testing the VMS to determine if an appropriate response is generated by the VMS for a particular input received by the VMS. Tsai (3:12-14) teaches that an operation is performed to generate a test signal to elicit a response from the VMS. Tsai (3:14-16) teaches an operation for detecting a voice signal produced by the VMS in response to the test signal. Tsai (3:17-20) teaches an operation for accessing stored reference phrases, such that one or more of

the accessed reference phrases can be combined to form an expected voice signal. Tsai (3:20-24) teaches that the voice signal produced by the VMS in response to the test signal is compared to the expected voice signal, as formed through combination of the accessed reference phrases, to determine if the voice signal produced by the VMS is the expected voice signal.

It should be appreciated that Tsai teaches a method for testing the accuracy of a response generated by the VMS in reply to a particular input received by the VMS. Tsai does not teach that the particular input received by the VMS is transmitted through the VMS. Rather, Tsai teaches that the particular input received by the VMS is processed by the VMS to elicit a response from the VMS. Therefore, Tsai does not teach transmitting reference data through a system under test (SUT), as recited in amended claim 1.

Also, Tsai teaches that the voice signal generated by the VMS is a response elicited by the test signal received by the VMS. Tsai does not teach that the voice signal generated by the VMS is a degraded version of the test signal received by the VMS and transmitted through the VMS. Therefore, Tsai does not teach receiving a degraded version of the reference test data from the SUT, wherein the degradation within the degraded version of the reference test data is caused by transmission of the reference test data through the SUT, as recited in amended claim 1.

Furthermore, Tsai teaches that the voice signal response elicited from the VMS in reply the test signal is compared to an expected voice signal, wherein the expected voice signal is formed by one or more reference phrases accessed from a storage location. It should be appreciated that the expected voice signal and associated reference phrases, as taught by Tsai, do not represent the test signal originally transmitted to the VMS. Therefore, comparison of the voice signal produced by the VMS to the expected voice signal formed from one or more reference phrases does not constitute comparison of the voice signal produced by the VMS with the test signal originally transmitted to the VMS.

Therefore, Tsai does not teach comparing each of the plurality of data segments in the degraded version of the reference test data received from the SUT to the corresponding data segment in the reference test data that was transmitted through the SUT, as recited in amended claim 1.

Furthermore, amended claim 1 recites that a fixed point operation is used to compare each of the plurality of data segments in the degraded version of the reference test data to the corresponding data segment in the reference test data to evaluate a level of degradation within the degraded version of the reference test data. The Office has asserted that Tsai (4:48-59) teaches the use of a fixed point operation to compare each of the plurality of data segments in the degraded version of the reference test data to the corresponding data segment in the reference test data. The Applicant does not find a teaching with regard to use of a fixed point operation in the cited portion of Tsai, or other portions of Tsai. Moreover, the Applicant notes that Tsai (5:9-13) teaches a method for comparing the voice signal produced by the VMS to the expected voice signal by calculating a value of average acoustic intensity for each frame within the voice signal. The calculation of average acoustic intensity values by Tsai is a floating-point operation, as opposed to a fixed point operation. Therefore, Tsai does not teach use of a fixed point operation, as recited in amended claim 1.

Amended claim 14 recites a computer readable medium having program instructions stored thereon for testing a quality of communication data received from a SUT. The program instructions stored on the computer readable medium, as recited in amended claim 14, essentially correspond to the method operations recited in amended claim 1. In following, the Office has rejected the various features of claim 14 using the same bases as applied to reject the corresponding features of claim 1. Therefore, the Applicant submits that the arguments presented above with regard to the Office's

rejection of claim 1, as being anticipated by Tsai under 35 U.S.C. 102, are equally applicable to amended claim 14.

For a claim to be anticipated under 35 U.S.C. 102, each and every feature of the claim must be taught by a single prior art reference. In view of the foregoing, the Applicant submits that Tsai fails to teach each and every feature of amended claims 1 and 14, respectively, as required for anticipation under 35 U.S.C. 102. Therefore, the Office is requested to withdraw the rejections of amended claims 1 and 14 under 35 U.S.C. 102.

Because a dependent claim incorporates each and every feature of its independent claim, the dependent claim is patentable for at least the same reasons as its independent claim. Therefore, the Applicant submits that each of dependent claims 2 and 4-5 is patentable for at least the same reasons as claim 1, and each of dependent claims 15 and 17-18 is patentable for at least the same reasons as claim 14. The Office is requested to withdraw the rejections of dependent claims 2, 4-5, 15, and 17-18 under 35 U.S.C. 102.

**Rejections under 35 U.S.C. 103**

Claims 3 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai in view of Cabot (U.S. Patent No. 5,649,604). These rejections are traversed.

Because a dependent claim incorporates each and every feature of its independent claim, the dependent claim is patentable for at least the same reasons as its independent claim. Therefore, the Applicant submits that each of dependent claims 3 and 16 is patentable for at least the same reasons as claims 1 and 14, respectively. The Office is requested to withdraw the rejections of dependent claims 3 and 16 under 35 U.S.C. 103.

Claims 6-10, 12-13, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai in view of Quan et al. ("Quan" hereafter) (U.S. Patent Application Publication No. 2004/0193974). These rejections are traversed.

In applying the combination of Tsai and Quan to assert prima facie obviousness of claim 8, the Office has relied upon Tsai to teach each feature of claim 8 other than the encoder and decoder. The Office has asserted that Quan teaches the encoder and decoder features of claim 8. Therefore, the Office has asserted that Tsai teaches the fixed point based logic unit as recited in claim 8.

Amended claim 8 recites transmitter logic defined to transmit encoded reference test data through a SUT, and receiver logic defined to receive a degraded version of the encoded reference data from the SUT, wherein degradation within the degraded version of the encoded reference test data is caused by transmission of the encoded reference test data through the SUT. Amended claim 8 also recites a fixed point based logic unit defined to compare each of a plurality of data segments in the degraded version of the reference test data to a corresponding data segment in the reference test data. Amended claim 8 further recites that the fixed point based logic unit uses a fixed point operation to evaluate a level of degradation within the degraded version of the reference test data.

The combination of Tsai and Quan does not teach or suggest a system for testing a quality of communication data received from a SUT that includes a fixed point based logic unit defined to compare each of a plurality of data segments in the degraded version of the reference test data to a corresponding data segment in the reference test data using a fixed point operation so as to evaluate a level of degradation within the degraded version of the reference test data. The Office has asserted that Tsai (4:48-59) teaches the use of a fixed point operation to compare each of the plurality of data segments in the degraded version of the reference test data to the corresponding data segment in the reference test data, and thereby teaches the fixed point based logic unit of amended claim 8.

As previously discussed with regard to amended claim 1, the Applicant does not find a teaching with regard to use of a fixed point operation in the cited portion of Tsai, or

other portions of Tsai. Moreover, the Applicant notes that Tsai (5:9-13) teaches a method for comparing the voice signal produced by the VMS to the expected voice signal by calculating a value of average acoustic intensity for each frame within the voice signal. The calculation of average acoustic intensity values by Tsai is a floating-point operation, as opposed to a fixed point operation. Therefore, Tsai does not teach either use of a fixed point operation, or a fixed point based logic unit defined to use a fixed point operation, as recited in amended claim 8.

The Applicant submits that the combination of Tsai and Quan does not teach a fixed point based logic unit as recited in amended claim 8. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Therefore, the Applicant submits that amended claim 8 is not rendered prima facie obvious under 35 U.S.C. 103 by the asserted combination of Tsai and Quan. The Office is requested to withdraw the rejection of amended claim 8 under 35 U.S.C. 103.

Because a dependent claim incorporates each and every feature of its independent claim, the dependent claim is patentable for at least the same reasons as its independent claim. Therefore, the Applicant submits that each of dependent claims 6-7 is patentable for at least the same reasons as claim 1, each of dependent claims 9-10 and 12-13 is patentable for at least the same reasons as claim 8, and dependent claim 19 is patentable for at least the same reasons as claim 14. The Office is requested to withdraw the rejections of dependent claims 6-7, 9-10, 12-13, and 19 under 35 U.S.C. 103.

Claim 11 was rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai in view of Quan and further in view of Cabot. This rejection is traversed.

Because a dependent claim incorporates each and every feature of its independent claim, the dependent claim is patentable for at least the same reasons as its independent

claim. Therefore, the Applicant submits that dependent claim 11 is patentable for at least the same reasons as claim 8. The Office is requested to withdraw the rejection of dependent claim 11 under 35 U.S.C. 103.

The Applicant respectfully submits that all of the pending claims are in condition for allowance. Therefore, a Notice of Allowance is requested. If the Examiner has any questions concerning the present Amendment, the Examiner is kindly requested to contact the undersigned at (408) 774-6914. Also, if any additional fees are due in connection with filing this Amendment, the Commissioner is authorized to charge Deposit Account No. 50-0805 (Order No. SPIRP002). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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